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MASSACHUSETTS PLOUGHMAN
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AGRICULTURAL.

The daughter of the late William L. Bradley of Boston, originator of the fertilizer business still conducted under his name, has recently given \$20,000 to Harvard University, the income to be expended in increasing the knowledge of trees, in which and their planting her father was much interested.

The trade in condensed milk is rapidly growing, and yet the factories are so few that the business is practically a monopoly. It is probable that co-operations for this purpose would prove more remunerative than creameries. A gallon of milk makes about three pounds of condensed milk.

A CORRECTION.—In the article published in our last issue on "How to Pick Apples" by J. J. H. Gregory, a comparison was made between the keeping qualities of apparently sound windfalls and apples carefully hand-picked. The article stated that within two months, nearly a third of the former were found to be decayed as compared with a fourth of the latter. It should have read a fortieth. In justice to ourselves it should be stated that the error was made in the paper in which the article originally appeared.

The great McNair fruit farm, which consists of 2036 acres, is located at St. Elmo, near Thayer, Mo. The start was made in June, 1893. One hundred and fifty men were put to work clearing the ground and preparing it for fruit-tree planting. By January 1, 1894, 36,400 trees had been set out. Six hundred and eighty acres will be planted in peaches this fall. On his premises he already has 20,400 Elberta peach trees three years old. There are 20,000 apple and 3000 peach trees already planted on the farm. By far the most interesting sight on this great fruit farm is a herd of fourteen buffalo. There is only one other herd on the continent. Most of the fruit grown on the farm is marketed in the East and England.—American Gardening.

It is not always the cow that gives the largest amount of milk that is the most profitable. It is an easy matter to test your cows and find out which ones are paying and how much profit. A writer in Hoard's Dairyman says he was completely upset by the test he made. One little grade Jersey, that would not weigh over 800 pounds, he found was yielding a pound and a quarter of butter a day on an average flow of twenty-five pounds of milk. Other cows that he supposed were worth nearly double the value of the little cow were giving thirty pounds of milk a day, which would only make a pound of butter. He was convinced that the little cow gave him at least 300 pounds of butter a year, while the others would not yield over 200 pounds. Further, he was certain that the little cow did her work on less feed than the other poorer and larger cows.

PROF. BYRON D. HALSTEAD, of the New Jersey Experiment Station, recommends the following treatment for celery fields infested with rust: There are two general methods of checking the rust, namely, by destroying the

spores and by preventing their growing upon and getting a foot-hold in the substance of healthy asparagus plants. The rust fungi are among the most difficult to check—by protecting the plants they feed upon—by means of fungicides, Bordeaux mixtures, etc., sprayed upon them during the growing season. While something may be hoped for with the spraying pump, the chief method of eradication lies in the destruction of the many spores. This can be done in a very simple and effective manner by carefully gathering all the parts of the asparagus plants that are above ground and burning them. It would be a waste of time to stack the tops and leave them to natural decay; and to place them in manure heaps would be still worse. The only safe thing to do when a serious enemy like this is in the asparagus field is to burn the plants even to the last scrap that can be gathered up. Let this be done at once, for any delay means the breaking up of the brittle, rusty plants, and a generous sowing of the spores upon the ground. If the fire could go over the whole and burn all the small as well as the large pieces, that would be the best of all.

To Prepare Bones.

EDITOR OF MASSACHUSETTS PLOUGHMAN,
Dear Sir—I have a lot of odds and ends of old bones, perhaps nearly a ton on my farm, but owing to the promiscuous sizes and shapes they are of no use to me. Is there any way that an ordinary farmer can dissolve these, or is there any machine for crushing or cutting them into small pieces or dust so that they will be valuable as a fertilizer? Any information your readers can give on this point would be valuable.
A. B. C.

The best way to work up small quantities of bones on the farm is to pile them with unleached hard wood ashes, using about twice or three times the bulk of ashes. Moistened the pile while building it and cover it with an inch or so of loam; after a week or two, turn the pile over and the bones will be found softened so as to crumble in handling. If any large lumps have escaped the action of the ashes, throw them aside to be worked up with the next lot.—Ed.

Salting Cows.

Salting the cows is one of the little things that is sometimes lost sight of under the pressure of other, and what is regarded as more important work, and a trial recently made at the Mississippi Experiment Station, indicates that inattention to this point may be a rather expensive oversight. Three cows were kept without salt for four weeks, and their milk record kept during the last two weeks of this period; then they were given the usual allowance of salt for two weeks, and on comparing the milk records it was found that the cows gave 454 pounds of milk during the first period when salt was withheld and 564 pounds during the second, when salt was furnished, a difference of 110 pounds of milk in two weeks in favor of salting.

Ninety Bushels of Wheat per Acre.

Wheat is profitable when thirty bushels per acre can be grown, and that this yield can be secured is unquestionable if the necessary conditions of the soil are provided for. The writer once sowed three ounces of wheat upon a square rod of ground in rows twelve inches apart. The ground was hoed once a week from the planting until the spreading wholly covered it, which was before the winter set in. In the spring the soil was stirred as much as possible until it could no longer be done. At the harvest the grain was threshed and made thirty-four pounds, which was equal to ninety bushels per acre. English farmers, by good culture and the use of the hoe in spring, have grown from sixty-five to seventy bushels per acre. Is there any reason why American farmers could not produce a similar yield? We think not.—Henry Stewart in Rural Canadian.

There is no reason, Mr. Stewart, except that the cost of labor would probably absorb the value of the increased crop. The wheat crop is drilled in rows so close that cultivation by other methods than hand hoeing is not practical.

Fruit on the Dairy Farm.

I do not think dairymen value a liberal supply of fruit as they should. It certainly is a fact that fruit may be made to bring in no little income if properly managed. It often happens that the dairyman when marketing his butter can dispose of a good many apples or other fruits. I know of one man who has a few trees of Red Astrachan apples. He says he has made more money from those few trees than from all the rest of his orchard. They are prolific bearers, and the fruit matures early at a time when there is a great scarcity of good cooking apples.

Berries also will put many a dollar into the pocket of the dairyman. This is coming to be in many parts of New York State a valuable adjunct to the dairy. A few hundred strawberry plants or raspberry canes, well cared for, will add not a few dollars to the purse of the man who has energy enough to set them out and cultivate them. One man I know of has sold many dollars worth this season. When he delivers an order of butter he takes along a few baskets of berries and never fails of a sale at good prices. The present has been an excellent year with us to get such plants started. I have put out a patch to raspberries, and also made a venture in the line of strawberries.

There is no reason why the dairyman, as well as the general farmer, should not have plenty of fruit in his season. Surely, nothing stands in the way except a little push and continual energy. It is not enough to set out the plants, they must be cared for right along or the response will be slight.

When I came on my present farm eight years ago I set out sixty apple trees. These I have kept trimmed and as free from borers as I could, and am now gathering some choice fruit from their branches. Last year one of these little trees bore a bushel of beautiful fruit, and how well it kept may be known when I say that after everything else was gone this spring we had hard and juicy fruit from that little Ben Davis tree. How pretty it looked, too, last fall with its branches bending low with that choice fruit.

The sight of it almost paid me for all the care I had taken of the tree. This year I have some nice russets growing. The yield of apples last year was wonderful and we did not expect much this year, but in some localities the supply will exceed the home demand. Plum trees are loaded to breaking with us. It is to be hoped that the time will soon come when all dairymen will add fruit-growing to their field of labor.

E. L. VINCENT,
Broome Co., N. Y.

Corn Smut.

The question is often asked whether corn smut is injurious to cattle when the fodder is infested with it.

Professor Henry of the Wisconsin Experiment Station, and Prof. Clinton D. Smith of the Michigan Station have investigated this matter with results that agree. The following is from a bulletin of the latter station:

"Corn smut in varying amounts was fed to three grades Short-horn cows and one grade Jersey cow in addition to a ration of corn, wheat bran, ground oats and linseed meals. The cows were in different stages of lactation. Two cows were fed as large quantities of the smut as they could be induced to eat, the amount being increased from two ounces at the start to eleven pounds per day. The other two cows were fed moderate amounts, the smut being increased from two ounces, at the start, to one pound per day. The composition of corn smut was found to be as follows:

COMPOSITION OF CORN SMUT.	
Water.....	8.30
Albuminoids.....	13.00
Carbohydrates.....	55.60
Cellulose.....	24.60
Sugar.....	4.00
Fat.....	1.30
Ash—considerable sand.....	22.50

"The test lasted forty-nine days. The gains in weight for each cow are recorded, as well as the temperature which was taken on alternate days. At the beginning of the test, the cows ate the smut very readily, and the two re-

ceiving it in moderate quantities continued to prefer it to the grain ration up to the close of the test. On the other hand, the cows receiving large quantities did not eat it so readily, though it was never entirely rejected. The ash of the corn smut was found to be rich in phosphates of potash and magnesia, like the ash of grain. In the analyst's opinion, the high percentage of ash was due to sand, which was accidentally present. The smut was examined for poisonous alkaloids, but none were found. The sugar in the smut may, in the author's opinion, account for the readiness with which the cattle ate it.

"The pregnant cows were watched for signs of abortion, but none appeared.

"Their milk yield was regular and constant, in the case of the cows giving milk, and no indication was given of any variation in this respect from normal conditions.

"The conclusion which can be safely drawn from this experiment is, that where cows are gradually brought into the habit of consuming large quantities of smut, it does not seem harmful to them. Whether the same thing would be true, where cows unaccustomed to smut suddenly gain access to large quantities of it must remain for future experiment. It is safe to say, however, that any quantity of smut that would be at all likely to exist in a cornfield, or on the stalks as fed under normal conditions to cows would not be dangerous to the health of the animals."

Lime and Liming.

Experiments have been conducted at the Rhode Island Experiment Station as to the effect of lime upon the growth of more than one hundred varieties of trees, and the results, as described in Bulletin 46 of that station, have shown that while a few have been injured by it, especially if grown the same season it was applied, others are uninjured by it or much benefited. Experiments were also conducted as to the best form in which to apply it, and it was found that to be the most effective, it must be applied in the form of air or water-slacked lime, or of calcium carbonate (carbonate of lime).

By uniting with the acid substances in the soil, lime sweetens the soil, and in case certain injurious iron compounds are present in the soil, liming so changes them as to render them harmless. It also acts upon potash compounds so that the lime takes the place of the potash, setting the latter free for the use of the plants. Lime favors the decomposition of any organic matter present, and also helps to free the stored up nitrogen in the soil. Excessive amounts of caustic lime may prove injurious to plants usually helped by it, especially if the soil were but slightly acid.

Lime also causes stiff clay to become more friable, more permeable to the air, easier of tillage and better capable of supplying water to plants as needed. It renders sandy soil more compact and more retentive of holding water and fertilizers. Very dry, sandy soils require smaller applications than moist ones, and the use of large quantities of lime, in single applications, for such soils is not advisable.

As lime in its caustic state is injurious to certain crops, and by lying in the soil, its causticity is soon lost or materially decreased, the ideal time to apply it is in the autumn. When autumn seeding is practised, either with grass alone or with winter rye, the lime should be sown upon the furrows after plowing and then most thoroughly harrowed in, for the degree of benefit from liming depends largely upon its even distribution and complete incorporation with the surface soil. When seeding Indian corn fields to grass at the last hoeing, as is done in the Connecticut Valley in Massachusetts, it is advisable to apply the lime as outlined above after plowing the land in the spring for the Indian corn crop. Under other circumstances, it is probably better not to lime just before Indian corn or rye, as these crops are liable to be slightly injured by fresh applications of lime. In the case of rye, there may be a slight increase in grain, which would offset to some extent the slight loss on the straw, while with

Indian corn, the maturity of the crop is usually hastened by liming, sometimes nearly a week, rendering it less liable to injury by early frosts and giving more time in the autumn after the removal of the corn for the grass to gain a firm foothold before the winter sets in.

If the lime is thoroughly worked into the soil, it may be applied in the spring, for certain plants, with little or no risk and usually with great advantage. This seems to be true of beets of all kinds, lettuce, spinach, cauliflower, kohlrabi, onions, muskmelons, cantaloupes, salsify, cabbage, peppers and many other plants. As indicated by the experiments at the station, ordinary millet, golden millet, and Hungarian grass are best sown a year or more after liming.

In ordinary rotations, extending over intervals of from five to seven years, it is seldom necessary to lime more than once in the rotation, unless some crop, like beets, onions, cucumbers, etc., which are particularly helped by lime, is a part of the rotation, but unless the soil was very deficient in lime, this might not be necessary. Where meadows are kept in grass for long periods, and where annual top dressing with stable manure is not resorted to, but, in its stead, frequent dressings with ordinary commercial fertilizer, an additional liming upon the grass might be desirable at intervals of five or six years.

The quantity of lime at a single application varies, under different conditions, from half a ton to three and even four tons an acre. The old method of lim-

ing heavily at rare intervals has now given way to using smaller quantities more frequently. This is due to the fact that lime gradually dissolves out of the soils and escapes into springs and streams. In the case of light, dry, sandy soils, the range of application would usually be from one thousand pounds to one and a half tons per acre, according to apparent need. On heavier soils, from one to three tons per acre is the usual range. Upon moderately heavy land, from one to two tons of lime per acre once during a rotation covering five to seven years, will accomplish all that is to be desired.

The litmus test, or testing with ammonia, will show whether the soil needs lime or not. Or, as beets are greatly benefited by liming where grown in soil which really needs such treatment, two plots of beets may be raised, one limed and the other unlimed, and the results will quickly indicate the condition of the soil.

The form of lime to apply to the soil depends upon the market price, but, as a rule, where the material must be carted long distances, or where the freight charges are considerable, quick lime is likely to be the cheapest form to use.

The Potato Rot.

From the many complaints received and a personal inspection of several potato fields in the state, it is evident that the potato rot is prevalent this season, says a recent bulletin of the New Jersey Experiment Station. This disease is caused by a fungus (Phytophthora infestans) which is closely related to the downy mildew upon the grape. It first attacks the potato leaves, causing them to curl and become "frosty" upon the under side, after which they quickly turn brown and decay. From the leaves the fine threads of the fungus pass to the stems, and if the conditions are favorable the vines are soon dead and leafless. The potatoes are the last to be attacked, and owing to their size and solidity, may be considerably infested internally with the fine filaments of the fungus before the condition familiarly known as the rot becomes evident. From this it follows that the loss from the decay of the tubers after harvesting the crop may possibly be more than that occurring in the field.

Conditions Favoring the Rot.—The first essential is abundant moisture. Since 1840, when it is thought that the trouble was introduced into this country from South America, the wet years have been the seasons of most rot. A moist atmosphere favors the development of the fungus in the leaves and stems; the rains assist in conveying the germs (spores) from the foliage to the

tubers, and the wet soil encourages the growth of the filaments that may have reached the potatoes by descending through the stems. A second favoring condition is warm weather—not hot or cold, but a condition of the atmosphere which obtains when there is a week or month of showery summer weather, often spoken of as "close" or "muggy"—just such weather, in fact, as we have experienced throughout the state for the past four weeks. A large quantity of decaying organic matter, as coarse barnyard manure, perhaps, stimulates the development of the rot, especially if accompanied by favorable conditions of temperature and moisture.

Treatment of Infested Fields.—It is evident that after the vines have been killed there can be no further growth of the tubers, as the disease first attacks the leaves and tips of the vines and works downward toward, and finally into, the tubers, it follows that there can be no loss in yield, and a great possible gain in healthfulness by early 'gking. As a rule, the potatoes should be removed from the soil as soon as possible after the vines have been "struck" by the rot. The dead vines abound in the spores of the disease and it is possible for the tubers to be infected by contact with the vines at time of digging. Therefore, it is an important and inexpensive precaution to rake the vines into heaps and burn them before the potatoes are dug, at the same time destroying millions of germs of the rot, some of which might otherwise do injury elsewhere.

The same conditions favor the rot after as before digging, and, therefore, the dug tubers should be left to dry thoroughly, then the sound ones may be stored where they can be kept dry, cool, and with a good circulation of fresh air. A damp, warm, close cellar favors the growth of the rot. Air-slacked lime, a handful or so per bushel, may be dusted over the freshly harvested potatoes to destroy any adhering germs.

Preventive Measures.—The conditions which favor the rot are not under human control; but knowing the habits of the pest and that it does not usually make its appearance until midsummer, it follows that early varieties of potatoes, when planted early, will usually mature before the rot appears and thus escape. It is also to be borne in mind that a loose, light soil does not promote the decay like a clayey one in which the water is held and the air enters with difficulty. From the nature of the disease, it is not expected that any one would think of attempting a second crop upon an infested field until some years have elapsed. Probably much of the trouble arises from the seed not being free from the disease. It is possible, the potatoes for planting should be obtained from a locality where rot has not prevailed. The tubers for seed may be soaked in a solution of corrosive sublimate before planting. Some recommend placing the "seed" in an oven for a few moments, heated to near a hundred degrees. If possible, plant upon a naturally dry or well-drained soil, and hill up the earth well around the vines at the last plowing, thus giving a good covering to the potatoes and making it less easy for the germs to reach the tubers through the soil. Experimentation may determine that some mixture can be applied to the young vines that will prevent the loss of foliage, and thus save perhaps a half or more of the crop that would otherwise either fail to develop or be lost by the rot. Until then, preventive measures are the only ones to offer.

What to do now.—The important thing now is to save the crop or fraction of a crop. To those, therefore, whose vines have died a month or less before their time this bulletin is issued as a warning to not leave the tubers in the ground any longer than possible. Burn the vines; let the potatoes dry out thoroughly in the field or elsewhere, and, if not marketed, store them in shallow bins, etc., in a dry, cool, airy place, being careful that all rotten tubers are excluded. Decayed potatoes should be removed from time to time through the autumn and winter as soon as detected in the bins. A sprinkling of air-slacked lime may be applied as a further preventive of the rot.

Beet Sugar.
Among the strong probabilities of the near future of agriculture is the probable rapid growth of the beet sugar industry in this country.
Already in California and Nebraska this business is well established and is paying good profits, and in New York State a strong company at Rome has undertaken this industry with good hopes of success. Probably there are several other places in which similar attempts are being made to introduce it, and there is no good reason why such attempts should not succeed if undertaken by the right kind of men with sufficient capital.
The beet sugar industry in Germany, Belgium and France has assumed very large proportions. It is true that in these countries it was fostered in the beginning and even now by a government bounty, the funds for which were and are derived from a tax on the sugar consumed at home, the bounty being paid to sugar exporters.
In this way the consumers of sugar, practically the whole people of Northern Europe, are taxed about three cents per pound on the sugar they use, in order to force the production of large amounts of beet sugar for export. Thus the people of Germany have to pay eight to ten cents per pound for their refined sugar, while in England or America German beet root can be bought for five cents.
Legislation of this sort is not desired nor needed in this country. It is probable that with the present duty on imported sugar there is a fair margin of profit for well managed production in the region adapted to beet sugar production, viz, in large parts of New England, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Michigan, Iowa, Kansas, Nebraska, South and North Dakota, Montana, California, Oregon and Washington.

The chief difficulties in making a start in the business are the facts that it cannot be done profitably upon a small scale and that the co-operation of a large number of dairymen with the sugar factory is essential to profitable management; for a considerable portion of the profit to be derived from this industry results from the feeding of the beet pulp to cattle, after the sugar has been extracted.

The history of the growth and development of this industry is very interesting. When the attempt was first made to produce sugar from beets in France under Napoleon I., the best beets produced only four or five per cent of sugar; by careful selection and breeding of the beets for this purpose the yield of sugar has been more than doubled, and it is now common to obtain eight or ten per cent of sugar from the improved beets.

The large amount of capital and the skilled labor and good management required at the factory, which finds full employment only for about three months in the autumn and early winter, are among the difficulties in this business. That they are not insuperable difficulties is proved by the statistics which show that for several years about five-eighths of all the sugar consumed in the civilized countries of the world is produced from beets.

Americans are fond of sugar and are willing to pay for it about \$200,000,000 per year, nearly all of it to foreign countries. Is there not an opportunity here for enterprise with reasonable hope of success, far more stable and permanent in its nature, and likely to prove more useful to all concerned than the dazzling dreams of the adventurers who are flocking to the Klondike gold fields where the risk of famine and hardship of every kind seems more than probable?

In our opinion, heifers of dairy breeds should be bred at about fifteen months of age, so as to come in at two years, if they have been fed and cared for so as to make a good growth up to that time. If a bull has been cared for in like manner, he is fit for service at the age of one year. He might serve a dozen cows the first year, without injury, if there were intervals of several days between services.—Hoard's Dairyman.

POULTRY.

Poultry Raising.

In the latitude of Massachusetts, the poultry raiser who employs artificial methods, independent of the whimsical old hen, and who intends to capture every dollar that can be made in the business, and who desires a month or two respite from his more arduous labors, cannot do better than select July and August as the two best months in which to omit hatching. Not because chickens hatched in mid-summer will not thrive, whether in properly constructed brooders located in shady places or with hens that are prevented from roaming with their broods in the boiling sun, for that idea has long been exploded, but simply to partially relieve himself of the care of incubators and newly hatched chickens, and thus lighten his task when it will least affect his income, for the hatchings of July and August are perhaps the least profitable of any in the entire year. Such a poultryman, however, should start his incubators again by August 10th, to have his fall hatchings commence September 1st, because chickens then hatched will grow faster than at any other season of the year, and we have had them average over a pound each, in lots, at five weeks old. This is not surprising when we consider the favorable conditions which then exist. The fierce heat of mid-summer is passed, the days are seldom excessively hot, the mornings and evenings are cool, and the nights are comfortable. Every seed-bearing plant has gone to seed, enabling lively and level headed chickens to almost obtain their own living, and the very best kind of a living at that, and well rewarding them for foraging and scratching to their heart's content. These combined conditions render the mortality rate very low, and in fact almost nothing, and encourage the more experienced poultry raisers who take a brief breathing spell in July and August to resume their hatchings as soon after September 1st as possible.

If you adopt the plan of converting the most of your eggs into chickens, you will of course then continue your hatching uninterrupted, and particularly enjoy the rapid growth of chickens during the pleasant fall months, and again in the early spring, but if you are not situated to avail yourself of this advantage, and especially if you prosecute your business by hen power, you cannot better employ a portion of your leisure time at this season of the year than by studying the incubator and brooder problem and preparing yourself for something later. This subject will bear very close investigation. We were once precisely thus situated ourselves, and to borrow a phrase from the classics the way we investigated artificial poultry culture was a caution. We now vividly recall many old timers in the poultry business, now inhabiting the New Jerusalem, and whose entrance there we may have unintentionally hastened, to whom we must have been holy terrors, and they doubtless dreaded our frequent approach and our interminable questions, as they would have dreaded the approach of a roaring lion or the pestilence that walketh in darkness and the destruction that waited at noonday, but the knowledge ultimately gained by us was well worth the price. You will find much advantage in visiting successful poultry establishments and seeing incubators and brooders in actual operation, and in comparing the different makes and systems, including cost, labor involved, and especially the results in talking with the proprietors, if they are practical men, obtaining their ideas resulting from their experience, which are the only ideas of any value whatever. You may be led to change your mind on some points and to adopt better methods and more continual hatchings. After obtaining all information to be had from books and practical poultrymen, it must be your own experience that counts for much.

Not every one, however, clearly sees the importance of actual experience in any undertaking, or fully realizes that it is absolutely indispensable to howling success in poultry culture. We were recently approached by a gentleman of more than ordinary intelligence and culture, in fact "graced with polished manners and fine sense," but who was smitten with a love of country life, and applied for a position to operate and manage our incubators and brooders in case of a vacancy. Have you had any experience in this direction, we inquired. No, he replied, but I have a thorough knowledge of the theory. Incubators, I know, should be kept at a uniform temperature of 102 or 103, and moisture should be thus and so, which is simple enough, and brooders I am told should be kept so and so, according to the weather, the age of the chickens, &c. This, too, is very simple, so that by giving the matter my entire careful attention, I could not fail of success.

My dear sir, we replied, you are strangely deluded, and with your best efforts, you would at first be almost certain to make a failure. True, you

might happen to have a good hatch, but it might be followed by half a dozen partial or total failures, and it is almost morally certain that your first struggles with brooders would result in a death rate of from 50 to 100 per cent and the chickens that did manage to pull through and make a live of it, would have crooked toes or twisted legs, would sit on their haunches or walk on their elbows, or travel backward easier than forward, with what few feathers they had, pointing towards their ears, or else peradventure be as destitute of feathers as a bullfrog and as bare as the back of your hand. You discourage me, he replied. Not the slightest occasion for discouragement, we continued. Suppose you attempt to skate for the first time, and hardly on your feet before you are standing on your head, having meantime seen nearly every star in the firmament; or you venture to mount a bike and no sooner reach the saddle than you are walking on your ear and have sprained your left eyebrow, but by a little perseverance, you can soon cut a pigeon's wing on the ice, or scorch over the boulevard with the best of them or rather, we should say, with the worst of them. Precisely so with incubators and brooders or, in fact, with anything else. Begin small and let your losses be small, and learn your lesson gradually, for we all had to creep before we could walk, and this is in accordance with the immutable law of nature. We look at Mr. Rankin, for instance, today, and congratulate him upon his brilliant success, but it was not made at one bound, and we all know that at his first attempt he did not sail smoothly along with his ten thousand ducks and chickens per annum as today and his present handsome profits. On the contrary he struggled hard and labored indefatigably year after year, through the cold and snow of many a winter, and the heat of many a summer and amid failures and disasters which would have discouraged almost any other man, before solving the problem which he made clear and gave to the world, and which has so signally changed the entire aspect of poultry culture, and by no means the least important lesson he has taught us is, that perseverance is essential to success.

The idea we started to convey was that if this particular month is comparatively a leisure one with us, and if we are between two busy seasons, or between hay and grass, so to speak, we could not employ the time to better advantage than by looking about us, as opportunity may present, among the larger and most successful poultry raisers, and see if they have any ideas or methods that we can profitably adopt and if so, to make any slight necessary preparation now, and have it in readiness, instead of waiting until we want to use it, and then perhaps be obliged to go without it. Particularly is this desirable with the brooder system, now so frequently used by those who still hatch with hens, and cannot afford to purchase an incubator, but who desire to rear the largest possible number of chickens in the cheapest and at the same time, in the best manner. Many persons in this way avail themselves of considerable winter hatching, depending of course upon the caprices of the hens, but nevertheless adding quite a respectable sum to their income, and in fact thus hastening the time when they can purchase an incubator and keep pace and compete with their more advanced and fortunate neighbors.—W. H. Radd, in Poultry Keeper.

Co-operative Experiments.

There is in the Province of Ontario, Canada, an organization of farmers which, under the guidance of Director Zavitz of the Ontario Experiment Station, is carrying on the most extensive experiments ever made in agriculture. According to Prof. Zavitz' recent report there are at present 2835 farmers who are co-operating with the Experiment Station in making tests. These are partly graduates of the Ontario Agricultural College and partly enterprising farmers who have undertaken to help solve the problems which confront their brethren. The result of the work is already apparent. Thousands of farmers have observed the many experiment plots and fields in various parts of the province and profited thereby. The results obtained are regarded with more confidence than those from the necessarily limited plots of experiment stations, which it is often charged do not hold good in ordinary field culture. Similar work has been done in Connecticut with very satisfactory results. The plan is a good one and worthy of being more widely adopted.

The profit of keeping sheep is not to be estimated entirely by comparing the price of the fleece and meat they produce with the cost of keeping them. The improved condition of the farm must also be taken into consideration. The advantages of keeping sheep may not be shown in one year, or in four or five years. The profit in the business must be determined by comparing the condition of the farms on which sheep have been kept for many years with that of other places where they have not been kept.—Exchange.

APIARY.

Preparing Bees For Winter.

I infer this information is for our farmer friends. The experienced beekeeper already has his own pet methods. It seems to be generally acknowledged that out-door wintering on the summer stands requires the least time, money and skill, and is therefore especially adapted to the needs of the farmer beekeeper. We belong to that class and suffer no loss from wintering.

This is our method: We commence sufficiently early to have our bees packed by the first week in October. First, examine your hives and see that your colonies have good queens; should you find one queenless, write it with one of your weaker colonies that has a good queen. This may be done by placing the former over the latter, putting a sheet of heavy wrapping paper, size of hive, between the two, cutting a hole just large enough to allow the passage of a single bee at a time. They will unite slowly, avoiding a battle in which many valuable bees might be lost.

Now take from each hive two or more frames—enough to give room for a chaff division board on each side of the frames next to the walls of the hive. Weigh an average frame in order to ascertain the quantity of stores. If less than twenty-five pounds, feed honey or a syrup, made from the best granulated sugar—one part water to three of sugar giving to each colony enough to bring its stores up to the required standard. We use the ordinary box bee-feeder, set on top of the frames at sun down. Put on top, across the frames, sticks, or much better, what is known among beekeepers as Hill's Device. Over this place a cover of some loose woven cloth. The common burlap, which may be obtained at any furniture store, is cheap and satisfactory. Now put on a cushion a little larger than the hive. This cushion is made of the same material as the cover, and filled with oat or wheat chaff. Tuck down the edges that there may be no exposed place; put on the hive cover, observing that it has one or two air passages, covered with fine screen wire, and the work is done. Leave the entrance open full width.

If your bees are in an exposed place some kind of wind break at the back of the hive will be good. Last winter we utilized a pile of loose brick, by building a wall of them against the back of each hive as high as the brood chamber, and banking up earth against it. Early in spring when we first looked into the hives we found them so well supplied with bees and brood that we had nothing to do but let them take care of themselves, though our neighbors lost all their bees.

It is taken for granted that readers of progressive papers use the movable frame hive. In the language of the old German apiarist, from whom we purchased our first colony, and who gave us our first instruction in bee-keeping: "The old box hive is gone with the time when the farmer raised and fattened his hogs in the woods."—Mary Martin Durbin, in Indiana Farmer.

THE CLOSE OF THE HONEY HARVEST.

There is no time more important to know the condition of every hive of bees than just at the close of the honey harvest. If the season has been a good one, and much swarming has been allowed, many things will usually be found out of gear which, if not attended to promptly, may cause considerable loss and trouble. The first thing to be looked after is the queens, and right here is the greatest trouble with those who do not have "good luck" with bees; they simply do not keep them in proper condition and in fact know nothing about what is going on inside of the hive. It is a very small apiary that some colony will not be found queenless after the honey season, and even one is enough to cause not only its loss but endanger a dozen more.

Robbing always follows queenlessness, and the one is as sure to occur as the other. Perhaps fifty per cent of all virgin queens become lost after the surplus is disposed of and after settling down to housekeeping. A colony of bees containing a young or virgin queen has nothing to depend upon but the queen herself, as they have no brood from which to raise another, and if anything happens to the queen, and she takes several perilous trips before she is a laying queen, they are surely lost unless the deficiency is supplied by their keeper. Hence one of the greatest losses of bees occurs from this cause, and the careless beekeeper cannot account for it, but lays it to "bad luck."

Upon opening a hive, the absence of the brood is a sure sign of either a virgin queen or no queen at all, at any time during the summer months, and in

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most cases from early spring until late autumn. But in some cases pretty soon after the honey season has closed, some old queens will cease laying entirely, but very seldom, and even such as those are better superseded, as they are past their usefulness. At any rate we are safe to conclude there is something wrong, and make a search for the queen. If no queen can be found, we make a thorough test by inserting a frame of young brood from another hive, and if they have no queen they will start queen cells on the brood inserted, which is conclusive evidence of no queen. It may seem quite a job to hunt out a queen to those who are not acquainted with the interior of a bee hive, but a little experience will enable any one to find a queen in any hive in from one to three minutes.—A. H. Duff in the Western Rural.

Gasoline Engines on the Farm.

For a good many years I was unable to decide what was the best farm power or what was most convenient and economical to operate such machinery as we needed on the farm. I have tried in turn tread and sweep engines, steam engines and lastly a gasoline engine. Two years since I purchased a six-horse power gasoline engine, and can now say that it fills the bill exactly—just what every farmer should have who shreds his fodder and grinds feed in sufficient amount to justify the outlay of money on a good power. During the year I shred from forty to sixty acres of corn fodder, cut oats, ground feed and a few tons of bone meal for myself, and do a good deal of grinding for neighbors. With a convenient power I find that I use it much oftener than I did powers that took considerable time to get them ready for business.

I cannot imagine anything more convenient than a gasoline engine for use on the farm, unless it would be a perpetual motion. At any time, day or night, hot or cold, I can go into the barn, and without so much as even striking a match, have my engine running at full speed in two or three minutes. Oil it up and start it, and you need not go near it again for half a day, and only then to oil or refill the gasoline tank. It gives a strong, steady power and is very easy to operate. I have not been out a cent for repairs in the two years that I have been running my engine. It occupies but little space on the barn floor, and there is no danger of firing the hay or straw, or any other that may accumulate around the engine. And it is a great satisfaction to know also that when you are operating it there is no danger of explosion, and you are not going to get hurt if you keep out of the machinery. And as to cost of running, this item does not foot up very much, as no engineer is needed, and the cost of fuel, or gasoline, is only fifty or seventy-five cents a day, according to the amount of power necessary to speed up the machinery you have in operation. We have been asked quite frequently how large a farm must be to justify the expenditure of money for an engine. It does not have to be very large. A two-horse power engine would do for a small farm, and this would cost less than \$150. The interest on this investment would be \$9 a year, so you see that a very small farmer could find enough to do in grinding and cutting feed to soon overcome this amount. I would always have an engine on trucks so that it might be easily shifted about the barn or to different parts of the farm. The two-horse engine, being small, I would mount on runners, as two horses could draw it easily about from place to place when needed. I think it is not possible for anything in the way of an electric motor to soon succeed the gasoline engine for practical use on the farm, cheapness and convenience being considered. We know there are many farmers who would buy a power for home use if they were sure they were getting a good, cheap, safe and reliable machine. I will only add that if you select a reliable make of gasoline engines you will make no mistake, and after you get it you will wonder how you got along without it.—W. W. Stevens, in Prairie Farmer.

Quick Milking.

The two main points in milking are gentleness and quickness; indeed of the two, quickness is the chief, for a quick milker can seldom be a bad one. Where milking is done by piece work, and the tough cows are eliminated, it is customary for one person to do ten in an hour; a little longer time being required when all come together in full yield in the beginning of summer. Where it is not done by piecework, and the cows are of all sorts, it may take half an hour longer; but the more quickly it is done, the more will the milk yielding power of the animals be stimulated. If the milk is frothed in the pail, it may be taken for granted that the speed is all right, however; but if it is not frothed, then the milker is doing an injury to the cows, and it kept to the one lot would put them prematurely dry. But the quality of the milk, as well as the quantity, is influenced by the milking of the cows and the manner thereof. Dr. Babcock found, in some experiments he tried regarding this matter, that slow milking had a very decided effect in reducing the butter fat in the milk, there being an average decline of over eleven per cent in his trials as a result of slow milking, while there was also a decided diminution in the quantity; though in a prolonged trial with cows naturally going dry, the differences tended to disappear. The total result over a season, however, is beneficial to the milk yield in the case of quick milking, not to speak of the saving of time.—Hoard's Dairyman.



When your appetite or liver is disturbed; when the stomach and sleep are not working properly, or the bowels are not in regular condition; you are losing vitality and strength; figures are going down on the wrong side of the ledger. Unless this is stopped and the other side of the account is built up, you'll soon be a physical bankrupt.

The most profitable account a sick man can open in his ledger of life is with Dr. Pierce's Golden Medical Discovery, a wonderful and scientific tonic which imparts a direct and healthy stimulus to the entire nutritive organism. It strengthens the digestive fluids and the liver, and enables the blood-making organs to produce pure, red, highly-vitalized blood. It is not a mere temporary exhilarator. It feeds the constitution with genuine, permanent power. It writes, "good" round upon the health side of the account, and wipes out the figures of weakness and disease. It animates the vital forces and builds up healthy flesh, muscular energy and nerve force.

For nearly 30 years Dr. Pierce has been chief consulting physician of the Invalid Hotel and Surgical Institute, of Buffalo, N. Y. His formulas are everywhere recognized as the most effective remedies for the world. His "Pleasant Pellets" are the most perfect and scientific cure for constipation ever invented. They are not violent in their action, but perfectly sure, and at the same time comfortable. Their great reputation has called out a score of imitations, which druggists sometimes try to substitute, but there is nothing "just as good."

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MASSACHUSETTS PLOUGHMAN

BOSTON, SEPTEMBER 18, 1897.

Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.

KENT county, England, the home of the Romney Marsh, or Kent sheep, averages 920 sheep to every 1000 acres.

HAVE you had your vacation? Take one while you have health and strength to enjoy it. It need not be expensive.

KANSAS farmers are happy with a big wheat crop and are paying off their mortgages rapidly. We heartily congratulate them.

The United States has not many over 50 sheep for every hundred of population, while Australia has 3000 to every hundred of population.

It is said that Wm. Freeman, of Little River, Fla., raised 633 crates of tomatoes this year on less than an acre of land, for which he received over \$1200 net.

THE hot weather of the past week is just what the corn crop needs. There is a prospect that most of it will ripen well after all. Reports from Kansas complain of lack of rain.

THE rolling stock of the great railways is insufficient to meet the demands of business. An order was given last week to the Pullman Co. for 1000 freight cars costing nearly \$1,000,000.

SHEEP breeders all over the country are taking courage and making plans to increase their flocks. This is encouraging, for sheep husbandry has never taken the important place it deserves in this country.

A New weekly has appeared in the newspaper ranks under the name of the Saturday Observer, of Worcester. The first issue appears bright and newsworthy and is clean and attractive in appearance. We wish it success.

WHEN corn is worth thirty-four cents per bushel, it costs four cents per pound to make pork. At the present relative price of corn and hogs, there is a good margin of profit for the hog raiser, and the margin seems to be growing larger from week to week.

ACCORDING to the Cincinnati Price Current, the number of hogs slaughtered in the West last week was 290,000, as compared with 285,000 the previous week. From March 1 up to last week the number slaughtered was 9,005,000, as compared with 7,495,000 for the same time last year.

THE hills and mountains of New England as well as the arable fields might carry profitably a large number of sheep without interfering at all with the number of cattle kept. Sheep feed on herbage that cattle will not touch, and a few of them in every cattle pasture are a help rather than a hindrance.

POTATO vines that have been blighted should be burned in order to kill the spores of the disease which otherwise might injure the next year's crop. Where the vines have blighted, dig the crop at once, and if not marketed at once, spread it on the barn floor to dry; after a few days sprinkle with air slaked lime and store in shallow bins.

THE protracted war in Cuba, together with the new duty on imported sugar, combine to raise the price of this necessary commodity and give a stimulus to the industry of growing beet sugar in this country. When once this industry shall be established it is likely that it will hold its own against foreign competition, in spite of the bounties paid by the European governments on sugar exported to foreign countries. There is no good reason why we should continue to import nearly all of the two hundred million dollars' worth of sugar which we consume; our soil, climate and ingenuity are competent to produce all we need, and probably the near future will see it done.

WE are glad to note that such an ideal "farmers' candidate" is in the field for the senatorial nomination in the fourth Worcester district as George L. Clemence of Southbridge. He represents the best element of the farming population and has shown himself to be both progressive and business-like in his chosen calling. His specialty has been dairy farming, and he has proved himself a leader in the application of the best of the new methods to this branch of farming. His silo was the third one built in this state and his dairy barn has proved a model for many large dairy farms, that at the Agricultural College being a duplicate of that of Mr. Clemence on an enlarged scale. Mr. Clemence is well known as a speaker on agricultural subjects, and has been heard at the Ploughman Farmers' Meetings. He has held several public offices in the past and if he is chosen to represent his district in the State Senate, there is no doubt but that he will do so worthily.

STATE OF OHIO, CITY OF TOLEDO, ss.

LUCAS COUNTY.

FRANK J. CHENEY makes oath that he is the senior partner of the firm of F. J. CHENEY & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of CATARRH that cannot be cured by the use of HALL'S CATARRH CURE.

FRANK J. CHENEY.

Sworn to before me and subscribed in my presence, this 18th day of December, A.D. 1896.

F. J. CHENEY & CO., Toledo, O.

A. W. GLEASON, Notary Public.

HALL'S Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

SOLD by Druggists, etc.

CURRENT TOPICS.

It seems a pity that the coal miners' strike, which has been so long continued without any tragic features, and which seemed on the point of being settled in a peaceable manner without bloodshed or violence, should have at last resulted in the tragedy at Latimer, Pa. As near as can be gathered from the conflicting testimony, it would appear that a large body of paraders, made up almost entirely of foreigners, unacquainted with the English language, were met by Sheriff Martin and ninety deputies, who proceeded to read the riot act to them. Being foreigners, they could not understand, and showed signs of resistance. Some one struck the sheriff, and an order was immediately given to fire upon the strikers, with the result that twenty-two of the miners were killed, fifteen fatally wounded and forty more injured. Many were shot in the back, in their attempt to escape. According to the opinion of the miners, the shooting was wholly unnecessary and the whole affair appears to be the result of a fatal blunder, but the sheriff and his deputies claim there was no other way possible. It is feared that more trouble will follow and troops are on the ground to prevent any demonstrations. The convention at Columbus, Ohio rejected the sixty-five cent proposition by a very close vote.

Of recent events in Europe the official announcement of the "alliance" between Russia and France, on the occasion of the visit of President Faure at the Russian capital, has no doubt been the most sensational, says Harper's Weekly. But it may well be questioned whether this event has really changed the relations between the great powers of the Old World sufficiently to justify the sensation it caused at the first moment. A "friendly understanding" between France and Russia has existed for many years. To be sure, an alliance means much more than a mere friendly understanding. It involves a more or less clear definition of the points the understanding is about, and the assumption by each party concerned of certain definite obligations toward the other, binding it to act thus and so in certain emergencies. A mere friendly understanding may be changed or abandoned, as one party or the other may change its views as to its immediate or remote interests, without any breach of positive obligations. By a formal alliance the friendly understanding receives the character of a matter of honor, and thus a much stronger warrant of good faith and durability. But as to its objects the alliance need not go farther than the more informal friendly understanding did, and it is eminently probable that it does not go farther in the present instance.

To France the open demonstration of intimate friendship with Russia has had a peculiar importance ever since her defeat in the Franco-German war. The French Republic found herself in a state of distressing isolation, partly on account of the issue of the war which stripped her of much of her prestige as a great power, and partly on account of her republican institutions, at which the monarchial governments around her looked askance. Backed by Russia she would be relieved of that isolation; her prestige as a great power would be heightened by the combination with another great power, and the family of European states the republic would be received on an equal footing with the monarchies.

It is not the growers of wheat and corn who are alone to benefit by the rising prices and extended foreign markets. Large as is the number of farmers raising grain for export, there is still another item of foreign demand that will continue the spread of better conditions throughout the United States. Since 1877 the largest export of wheat and wheat flour in any one year occurred in 1892, when 225,696,000 bushels were sent out of the country, and the value represented by the outward movement of all breadstuffs was in that year \$299,363,117, the only instance where the value of this class of exports has exceeded the value of the exports of raw cotton, says Harper's Weekly.

On these two items our command over European markets depends, for they contribute nearly two-fifths of the total value of all exports, and it is on them that the ability to draw gold from abroad depends. The rise in the price of grain has attracted public notice, and has naturally led to much speculation upon a continuance of the foreign demand at comparatively high prices. That the export will continue until the new crops are gathered in reasonably certain, and then the fall cotton movement will be in swing.

Thus the rising tide of the past summer will be held by the movement in the coming winter. The grain farmers are now having their day, and the cotton-growers are just beginning to realize their possibilities in the same line. The West and middle West have reaped their profits, and the effect has been sensible in every branch of industry. Now the South will come in for its share, and thus the activity of manufacturers will have a basis to rest upon and to increase.

All this is due to a remarkable combination of conditions. Such an occurrence as a general famine seems to be beyond the reach of possibility, so many are the kinds of food, grown under all descriptions of circumstance and geographical position. Famine will be more or less local affairs, pressing with terrible force upon a district, or even a single country, but affecting only indirectly all outside of its immediate sphere. The year 1897 presents what is probably the nearest approach to famine the world will see, and in this respect favors all who have grain to sell. It so happens that the farmers of the United States alone are in this position, and they therefore control the supply and reap the benefit of the higher prices. How insignificant a reason appears a new

tariff of duties on agricultural imports into the United States by the side of such a world-wide agency! The grain and cotton raisers of this country make its foreign commerce, and on their situation does its prosperity depend.

Col. Theodore Lyman.

Mr. Frank B. Sanborn contributes to the Springfield Republican the following appreciative and well-considered tribute to the memory of his late friend and classmate, Colonel Theodore Lyman:

It is pleasant to see, even by the mistakes made in the obituary notices of my classmate, "Ted" Lyman, that his death was not forestalled by those elaborate eulogies sent to the daily newspapers, sometimes years in advance of their use, which have become common in this advertising age. Few men needed such prepared tributes less, his career in public being well known, and his private friendships many and almost world-wide. His father had studied in Edinburgh, and seen the great Goethe at Weimar, in the early years of our century; he had also taken this son abroad before sending him to Harvard, where, indeed, Mayor Lyman did not live to see him, for he died in 1849, after providing for the first State reform school in the country, at Westboro, where it now bears the appropriate name of the "Lyman School." Theodore, third of the name, was born twenty-three years after his father's graduation at Harvard and graduated forty-five years after—an unusually long interval between father and son at the same college. He was first, cousin, by his mother's side, to President Eliot of Harvard, grandson of the Eliot who established there in 1814 the Greek professorship now held by Professor Goodwin. As Mayor Lyman concealed for some years the fact that he had endowed the Westboro School, so Samuel Eliot only revealed by his death his foundation of this professorship; traits of munificence that were more common in Boston than now, but which the late Theodore Lyman inherited.

Our classmate also inherited cheerful spirits, ready wit, a mind open rather than profound, but sincerely devoted to exact knowledge—especially after he came in contact with that gifted teacher of science, Louis Agassiz. His affection for this warm-hearted professor, whose special pupil Lyman became after graduation, and the fact that he and our classmate Alexander Agassiz married sisters (daughters of the late George R. Russell), seem to have given rise to the error that Louis Agassiz was his father-in-law. In fact, the two daughters of Agassiz married Henry Higginson and Quincy Shaw, the latter by marriage the uncle of Theodore Lyman. In college Lyman was gay, and finally studious, having been so well fitted that he found the first years of college life too easy; he then devoted himself to natural science, and became a high authority in ichthyology, serving the state long and well as fish commissioner. His war record, without being exceptionally brilliant, like our classmate, General Barlow's, was distinguished for good sense and courage in the performance of staff duty. As a youth he had a taste for military life, and his contributions to the Harvard Magazine, which the classes of '55 and '56 founded in 1854, related chiefly to military themes, on which he joked, with a substratum of excellent sense. His literary fame in college, however, rests chiefly on a Hasty Pudding Club song, "Long Since When Our Forefathers Landed," which is still sung at feasts of the brethren, even as Lyman himself used to sing it when "chorister" of that ancient club.

Harry Marten, the wit of the Puritan commonwealth, lingering out his days of imprisonment at Chestnut, wrote an acrostic in his prison, which thus closes:

Examples preach to the eye, heed them mine says;
No; how you end, but how you spend your days.

It was the fortune of Theodore Lyman to end his prosperous and happy life in long and lonesome disease, whose only chances were from bad to worse. It was then that the genuine character of our friend came out in the noblest form. That cheerful temper which might have seemed levity in youth was found to be the fortitude of the dying soldier, and the consolation of despairing friends. His best title to remembrance is neither his liberality nor his talent, but that unflinching endurance of the worst physical ills, and the generosity of soul with which he spared to others the suffering he could not avoid, but of which he would not complain.

Farm Sales.

The fruit and flower farm of E. M. Keith, situated on Main street, Bridge-water, comprising three acres, with commodious buildings, has been sold to H. L. Randall, of St. Louis, Mo., who buys for a summer home. The old Wheaton homestead in Sharon, comprising one acre of tillage and several acres of outlands, and an old-fashioned house of ten rooms, has been sold to John J. Kennedy of Boston, who buys for investment.

Mrs. Ella S. Willis has sold her residence in Sudbury Center, consisting of nine acres of tillable land and old colonial buildings, to A. E. Hosmer, of New Haven, Conn., who will make extensive improvements.

Elizabeth C. McDonald has sold to Charles King of Somerville a twelve-acre farm, with buildings, in Unionville, on the road to Woonsocket, R. I.

Hood's Pills
Should be in every family medicine chest and every traveler's grip. They are invaluable when the stomach is out of order; cure headache, biliousness, and all liver troubles. Mild and efficient. 25 cents.

Read and Run.

—Canadians are buying fruit in Kansas.
—Our exports were greatly increased in August.
—Dr. Parkhurst's health is reported to be restored.
—Port Huron, Mich., is to become an oil producer.
—New Orleans has no fear of the spread of fever there.
—Buffalo's gas interests have been sold for \$5,000,000.
—The price of coal will probably rise twenty-five cents Oct. 1.
—A party has left Edmonton to make a cattle trail to Klondike.
—New gold discoveries have been made on Sulphur Creek, Alaska.

—The western railways continue to show improved conditions.
—The last spike has been driven on the Port Arthur Gulf route.

—A Kansas City farmer is said to be heir to a Dutch pirate's wealth.

—A new steel pier is to be built at Atlantic City, N. J., to cost \$300,000.
—Chicago's new Public Library Building has been opened to the public.

—The Steamer Portland has sailed for St. Michaels armed with a Maxim gun.

—Trains now use four tracks on part of Boston & Albany's depressed roadbed.
—A great copper vein has been reported as found in Ashland County, Wisconsin.

—All lines of business in New York have been enormously stimulated by good times.

—A Spokane party is going to the Stewart River diggings overland via Ashcroft.

—Fifteen thousand acres of Alabama coal lands have been bought for development.

—Governor Wolcott has accepted the resignation of Insurance Commissioner Merrill.

—Daniel C. Brown has been held for trial on a charge of mail robbery at Marblehead.

—There is a report current that large paper mills are forming a combination to maintain prices.

—So much gold is accumulating in the treasury that it may have to be paid out in place of paper.

—Debs's followers in Chicago demand the life of a millionaire for every miner killed at Lattimer.

—Jacob Wilson, a San Francisco tramp, is said to have inherited a portion of a \$15,000,000 estate.

—The miners are leaving much of their Klondike holdings to return to America, fearing starvation.

—Mrs. E. Florence Barker, first national president of the Woman's Relief Corps, has died at Malden.

—The returns from the normal schools of the state show that the attendance will be largely increased.

—The question of admitting a street railway at Milton is to be settled by a special town meeting.

—The seventy-fifth anniversary of the adoption of the city charter of Boston was celebrated Thursday.

—Schooners D. M. Anthony and James L. Mayo collided in Vineyard Sound; both boats were badly injured.

—A woman, claiming to be the widow of Allen Gregory of Chicago, has asked for a share of his \$1,000,000 estate.

—The government crop report shows nearly five points decline in corn, which is now below the average for ten years.

—The schooner Alvara J. French has arrived at Gloucester, from Trapani, Italy, having been leaking ever since she left Gibraltar.

—Everett P. Willis pleaded "not guilty" in the Superior Criminal Court to an indictment of the Suffolk grand jury finding him probably guilty of an assault with intent to kill on Elisha S. Darling and James L. Abbott, officers of the State prison.

During September a series of Physicians' excursions will be run over the Fitchburg Railroad to the Adirondacks, and no one not familiar with the beauties of that region should lose the opportunity of touring that time. The excursion will leave Boston, Sept. 7th and 21st, and be under the personal supervision of Dr. C. McV. Tobey, manager of the Adirondack Bureau of Information, Boston, who was a resident of the mountains for twenty-five years, and is thoroughly familiar with their beauties. All of the best section will be included in the tour, and the service will be first-class in every respect.

The Adirondacks combine all the picturesque features of Maine, New Hampshire and Vermont in one grand panorama of mountain, lake and river, and the atmosphere is one constant, exhilarating tonic. The mountains clothed in the autumnal foliage, will be a sight long to be remembered, and one never to be forgotten.

Physicians cannot afford to lose this opportunity, for these trips are educators, and with that idea in mind, both the hotels and railroads have arranged to perform the service at actual cost and to give the best they have.

The rates will be \$55.00 and \$40.00, according to tour selected, which amount includes all expenses.

While designated "Physicians' Excursions," it should be understood that they are not restricted to that class, but are open to all who may desire to avail themselves of the cheapest and best Adirondack trip ever advertised.

For itinerary and information covering trip, application should be made to Dr. C. McV. Tobey, Manager Adirondack Bureau of Information, 220 Devonshire Street, Boston, Mass.

Dr. S. A. Tattle, Dear Sir.—This is to certify that I have used Tattle's Elixir, and cured a spavin on a mare that had been lame for more than a year, and for which I think it is the best I ever saw.

J. H. SHAW,

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Literary Notes.

HARPER'S WEEKLY during September will contain many features of particular interest, among them illustrated articles on the "Comedie Francaise," by Katherine de Forrest; on Kansas City as "A Great Grain and Cattle Market," on "The University of California," and on the two great new libraries in Chicago and at Columbia College, New York City. The WEEKLY of September 29 will be the "Sportman's Number," and will contain 32 pages.

During September HARPER'S BAZAR will contain instalments of a serial story, entitled "Father Quinlan," by Octave Thanet; accounts of the performances of Wagner's Nibelungen Cycle; a play for out-door acting, "A Summer Idyl," by Alice Ruth Carter; notes of women's colleges for the autumn term; and a humorous story by Grace Livingston Furniss, entitled "Jenk's Jobometers."

Press Comment.

Speaker Reed has the right idea on at least one of the points which he considers in his remarks upon the agricultural boom. "The returns from the wheat crop and other cereals," he says, "spent in purchases start the nation to work. When the nation once gets to work it will not stop until it gets out of gear again."

A high market price for wheat is not prosperity. It may help the farmers of Kansas to pay off their mortgages, but it makes dear the food of the workmen of Massachusetts. And the country cannot be prosperous until industry of all kinds has its share in the rewards of labor. But the wheat money which the farmers spend "gives the start" to production all over the land, and it will come this way before long.—Boston Post.

It strikes us that Connecticut has gone to a ridiculous extreme in passing a law compelling those who make tub-butter into bricks, pots or balls to stamp thereon the words "tub-butter," or have the words printed on the wrappers. Tub-butter may be, and often is, the best butter to be found. That it is put into a tub does not affect its quality. There are some things that cannot be done by law, and many more that ought to be tried.—Lowell Journal.

Emancipation dawns slowly for the hen. The Listener notices with sadness, in a poultry journal, a certain inquiry:

"There is trouble amongst my poultry. The hens are continually clearing their throats and appear to be trying to crow. The habit seems to be spreading amongst the flock. Is there any remedy for this?"

And this the heartless response: "The hens that are crowing or attempting to crow should be immediately separated from the rest of the flock, otherwise the habit will be acquired by others. Indeed, unless the isolation can be rendered complete and permanent, it would be advisable to kill the hens thus affected. This is simply a habit or vice common to some abnormal types of birds, and if those affected by it are allowed to mingle with the others the trouble will be increased. Eating eggs killing chickens and other bad habits, are liable to spread in the same way. Besides which the chickens of fowls subject to any particular bad habit are likely to become victims of it as they approach maturity. So that it is better to destroy the birds which cause the trouble."

Thus it happens that crowing hens still come to some bad end, though nowadays whistling girls live as long and are as good as any. Nevertheless, there is such a thing as advancement for the hen. There is now quite fashionable among breeders a kind of hen called the White Minorca, which has a prodigiously long comb—as high as that of the ordinary rooster. A well-known novelist was lately shown a yard-full of these remarkable hens, and expressed a wonder why so many roosters should be kept. "They are n't roosters," said the host: "every one is a hen." "New hens," I suppose," said the novelist. These long-combed Minorcas, by the way, are famous layers but absolute non-sitters. They decline the maternal office.—The Listener, in the Transcript.

Write to J. R. Watson, General Passenger Agent Fitchburg R. R., Boston, for circular giving full particulars of Hoosac Tunnel excursion, Sept. 18th.

For the National Unitarian Conference at Saratoga, September 20th to 23d, a rate of \$6.50 has been made from Boston via the Fitchburg Railroad with corresponding reduction from other stations.

HOOB'S PILLS are the only pills to take with Hood's Sarsaparilla. Easy and yet efficient.

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THE COURSE OF STUDY is thorough, complete and practical. Pupils are fitted for the duties and work of everyday life.

THE FACULTY embraces a list of more than twenty teachers and assistants, elected with special reference to proficiency in each department.

THE STUDENTS are young people of both sexes, full of diligence and zeal.

THE DISCIPLINE is of the highest order and includes valuable business lessons.

THE PATRONAGE is the LARGEST of any similar institution in the world.

THE REPUTATION of this school for originality and industry, and as being the Standard Institution of its kind is generally acknowledged.

SPECIAL COURSE. Shorthand, Type Writing, Composition and Correspondence may be taken as a special course.

SITUATIONS. In business houses furnished pupils among the varied inducements featured this school.

THE SCHOOL BUILDING, 608 Washington Street, Boston, is centrally located and admirably constructed. Office open daily, from 9 till 5 o'clock. Prospectus sent free. H. E. HIBBARD, Principal.

THE WORLD OVER.

—Costa Rica has adopted the gold standard.

—London papers say that Cuba cannot be reconquered.

—Forty persons have been killed in a mine near Madras.

—The statement is made that President Kruger is about to retire.

—Labouchere is advising Englishmen to purchase railroad stocks.

—Ex-King Milan of Serbia has inherited Baron Balch's great fortune.

—There is evidence that the czar has given Poland greater freedom.

—Argentina has retaliated on the United States by discriminating duties in a new tariff.

—Nova Scotia parties are negotiating for a monopoly of the best lumber of Labrador.

—Honduras has confiscated an American schooner and imprisoned her crew for smuggling.

—A storm of protest is raised in London against the alleged proposal of the Bank of England to hold one-fifth of its reserve in silver.

—A note which Minister Woodford has presented to Spain contains the proposition that the United States be a party to the settlement of the Cuban question.

—London is excited over the report that the Bank of England will keep one-fifth of its reserve in silver. It is thought to be only a feeler to see how the public would receive the step.

ART IN CARTS.

Horse, mule and ox carts—carts that dump and carts that don't—oak carts with steel axles—the handiest to have—the surest way to stay strong—are the kind made by Hobson & Co., New York.

They make a dumping Horse Cart that's the best thing of its kind. Write for their catalogue.

HAS GREAT FAITH.

"I was pale and puny and never was well. I also had a bad throat trouble. Seeing an advertisement of Hood's Sarsaparilla I procured a bottle and it helped me at once. I continued its use until I was cured. It keeps me well." Mrs. LENA FARNUM, Box 116, Hills Grove, R. I.

HOOB'S PILLS are the only pills to take with Hood's Sarsaparilla. Easy and yet efficient.

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THE HOUSEHOLD.

TO BY-LOW LAND.

My little dear, the star-lamps
Are lighted overhead,
To guide all sleepy children
From the land of nod.
On a most delightful journey
Oh, you'll all be glad to go
To that pleasant, pleasant country
Where the dream-flowers grow.
You'll find a good steady waiting,
So mount and give command,
And trot away, and trot away
To By-Low Land.

You can go by Sleepy Hollow,
That's the shortest route to take
On the journey you are going,
From the plains of Wideawake.
You'll be there before you know it;
Shut your drowsy eyes, and lo!
You are in the pleasant country
Where the dream-flowers grow.
Your good steady waiting for you,
So mount and give command,
And trot away, and trot away
To By-Low Land.

Ere you start upon your journey,
Mother wants a ring and kiss
From each drowsy little darling,
And she softly tells you this—
She'll be home when you've left her,
Tho' she's glad to have you go
To that pleasant, pleasant country
Where the dream-flowers grow.
Your good steady waiting for you,
So mount and give command,
And trot away, and trot away
To By-Low Land.

—Washington Home Magazine.

KING EDWARD.

You want a story? Well, children, I don't know whether you'll call it a story or not. It's all about the school I went to in the Far West, out on the edge of the woods, and a couple of miles from the village—a long stretch for short legs, and too long a walk for the teacher, Miss Mills, who used to ride over from Deacon Potter's, where she boarded, on the queer little donkey, "King Edward."

Most donkeys are called "Neddie," you know. And Miss Mills' pet had a finer name, you see; and he wouldn't answer to any other. He had the loudest bray and the longest ears of any donkey that ever lived. Lucky that for us, as it turned out.

It was a queer school-room, you would say. The desks were slabs at angles, and the boys had all cut their names on them. In one corner there was a shallow box full of fine white sand. The little ones began to write by making the letters in the sand with skewers. When the lesson was over, Miss Mills smoothed the sand with a rolling-pin; and there it was again. I learned to write that way. Slate came next, paper afterward.

Miss Mills did the best she could with us; and King Edward helped keep school by putting his head in at the window every now and then, and braying. That always made any new scholar shriek. Then the rest of us would laugh.

Miss Mills said she was thankful when winter came, because she could shut the windows and keep King Edward's head out. But, though it was as cold as Greenland when we first got to school, the great fire that was piled up in the big wood stove would begin to roast us all by eleven o'clock; and then up would go the window, and in would come King Edward's head, and his bray.

I remember, on the day that I am going to tell you about, Jim Burke, a boy who was always up to mischief, had brought over an old sunbonnet of his mother's, and tied it on to King Edward's head, putting the long ears through two holes he had cut for them.

"There'll be fun when he looks in," he said to two or three of us who were in the secret. "Don't tell any of the girls. I want to hear them screech."

We were all singing, "Twice one is two, twice two is four." In chorus, I remember; and Jim had his eye on the window, watching for King Edward, when the door moved.

"King Ed. is coming in that way," whispered Jim. Miss Mills heard him, and turned her head.

"That's a little too much," she said, and stepped forward to put the donkey out, but stopped half-way, turned pale, and looked as if she was about to faint. The next moment the girls were shrieking and the boys shouting, for in walked a bear.

It was a cold winter; and the bears were hungry in the woods, and getting savage. The men were going off for a bear hunt that week, and the children were all forbidden to go into the woods; but none of the animals had come up into the settlement as yet. Nobody wanted them to. A hungry bear is a dangerous beast, and we all knew it. This was a gaunt, wide-mouthed, red-eyed "critter," and he glared at us furiously.

None of us dared to run for the windows; for they were on the same side as the door, not very big, either. Miss Mills couldn't have got through one of them. The bear was doing very queer things, moving his head round and round, but never taking his eyes off us.

Soon the bear growled again, and took a step toward us; and at that moment, in at the open window came the queerest thing—King Edward's head, his long ears thrust through the holes in the sunbonnet, the ribbons tied in a bow under his chin, his mouth opened, staring at the bear through his white eyelashes, and braying as he had never brayed before. The white cape of the sunbonnet flapped and rustled, the roar of his voice filled the room; and that bear! Well, children, anything an animal has never seen before is sure to scare it; and such a sight as Ned was at that minute!—nothing to be seen of him but his head, and such a voice as the Lord gave him for that occasion no bear surely ever heard before. There have been folk that have said I exaggerated this story; but I'm giving you facts, children, when I tell you that, when King Edward brayed, that bear dropped on his forelegs, turned tail, and waddled out of the door as fast as his feet could carry him, and off to the woods, King Edward, in his sunbonnet, kicking up his heels, and braying over the fence at him all the way.

As for Miss Mills, as soon as she could get her breath again, she made us all go down on our knees and say our prayers, and then gave us a half-holiday, and got the nearest farmer to take us all home in his farm wagon.

Little Fannie told her mother that an angel with white wings looked into the window, and told the bear to go home. And we couldn't laugh at her; for, if that donkey wasn't an angel, he had been one to us, and, after that, we were all fonder of him than ever.—New York Ledger.

THE DANDELION'S COMPLAINT.

Oh dear! Oh dear!
How strange I must appear!
My head is so bare,
That every one will stare
At me now.

Once like a golden star
I shone out from afar;
Then a light fleecy down
Made a lovely crown
On my head.

But this morning—oh dear!
It all seems so queer—
There came a little lass,
And passed upon the grass
By my side.

She wished something, very low,
And then began to blow,
And my soft, silky hair
Went floating through the air
All around.

"I blow them all away
And wish," I heard her say,
But I know I shall take cold,
And it makes me look so old—
Oh, dear!

—St. Nicholas.

THE LITTLE WHITE BEAN.

"Dark! dark!" said the little white bean, as he tried to make more room for himself in his earthy bed.

"Where am I? What's the matter? Am I?"—and in the midst of his wriggling and chattering, he actually burst his little white coat. He was wide enough awake by this time. Like Rip Van Winkle, he spent some time in trying to think just where he had been and what had happened before he had gone to sleep, but, unlike Rip, he could not clearly recall the past.

"I wonder what is to become of me," mused he aloud. "I am so cramped down here," he fretfully said the next moment.

"Oh, what's this?" laughed he, as he saw something peeping out from the rent in his coat. Whatever it was, it held his attention for at least two minutes, which is a long time for a bean to give attention.

"How tight my coat is," said he as he twisted his shoulders.

Snap! went the seam in his little coat. The little bean drew a long breath, and knitted his brow in thought.

"Ah! I grow," said he.

Alas, little beans, too, have their worries and troubles.

This one grew really vexed about the way in which he ought to grow. He first thought to go up and then to go down. Even after he had decided to go up, he continued to go down, or rather that which he had found in the rent in his coat grew downward.

Somehow, it had crept into the head of this little bean that it was to be his lot to repeat the story of "Jack and His Wonderful Bean-stalk." How he fretted about his seeming failure, for, down, down went his little white arm, while from its tip, reaching out in every direction, grew tiny white fingers.

One afternoon, when the sun had shone bright and warm way up overhead, the little bean felt the burning of fever in his veins. "I thirst," said he, and quickly those tiny fingers took up water and sent it to him. This so refreshed the little bean that he said, "Tomorrow I will surely begin to grow up."

The next morning, when he awoke, he seemed fairly bursting with pain. "Oh! oh!" cried he, as he held his aching sides.

"Pop!"

This time, not only his coat, but even his plump little body was made to gap.

When he had recovered from his surprise, he peeped into the gap, and what do you suppose he saw?—a tiny pair of crumpled leaves.

Every day those little leaves grew larger and larger. More and more did the halves of the little bean spread apart. One morning he awoke to find everything changed. After rubbing his eyes (a habit little beans have), he glanced upward and saw the beautiful sunlight streaming down to him through several brown cracks in the earth overhead. "I will start up right away," said the little bean.

Several days passed before he was really above ground, and then he hardly dared lift his face toward the sun. In the meantime, the pair of tiny leaves had shot upward, leaving the poor little bean behind.

"Oh! if I were only a pair of green leaves," sighed the little bean. He could think of nothing else. "Oh, yes, please, please turn me into a pair of green leaves!" he said, again and again. He really did become green and leaf-like.

Why was this? Do you think that the sun did what the little bean had so often asked him to do, or was he thus changed because of his jealousy of the little green leaves?

The little green leaves grew on, and by and by another pair shot out from between them.

The little bean never went far away from the earth.

One day, when he was old, very old, when the little white blossoms way up above him were giving place to tiny cradles, which were to rock other little beans, he loosed his hold upon either side of the stem which had borne him so long, and gently, softly dropped to the earth from whence he had journeyed so long before.—Journal of Education.

Proud of a Patch.

A poor boy, with a large patch on one knee of his trousers, was laughed at by a schoolmate, who called him "Old Patch."

"Why don't you fight him?" cried one of the boys. "I'd give it to him if he called me so."

"Oh," said the boy, "you don't suppose I'm ashamed of my patch, do you? For my part, I'm thankful for a good mother to keep me out of rags. I'm proud of the patch for her sake."—Sunday School Advocate.

The more I live, the more I love this lovely world; feel more its Author in each little thing, in all that's great. But yet I feel my immortality the more.—Theodore Parker.

THE HOME CORNER.

FREE PATTERN.

By special arrangement with the BAZAR GLOVE-FITTING PATTERN CO., we are able to supply our readers with the Bazar Glove-Fitting Pattern at very low cost. It is acknowledged by every one that these patterns are the simplest, most economical and most reliable patterns published. Full directions accompany each pattern, and our lady readers have been invariably pleased with them in the past. The coupon below must accompany each order, otherwise the pattern will cost the full price.

MASS. PLOUGHMAN COUPON.

Cut this out, fill in your name, address, number and size of pattern desired, and mail it to:

THE HOME CORNER, MASS. PLOUGHMAN, BOSTON, MASS.

Name.....

Address.....

No. of Pattern.....

Size.....

Enclose ten cents to pay expenses.

Figured dimity, embroidered edging and insertion were the materials used in making this neat and simple apron, but dotted Swiss, cross-hatched muslin, striped and plain cambric, percale and gingham are equally suitable.

The upper portion consists of a short-fitted body having a straight lower edge, the neck being cut in low rounded outline. The skirt portion is simply gathered at the upper edge and joined to the body.

A belt of insertion encircles the waist and is carried forward to the center, closing with button and button-hole. The skirt is hemmed deeply at the bottom; narrow hems finishing the back edges where the closing is effected.

An attractive feature is the fanciful bertha, cut in two sections, that is included in the neck, falling deeply over the sleeves and forming an epanlette that adds to the breadth of shoulders and is universally becoming. Both it and the neck are finished with frills of embroidery headed by bands of insertion. To make this apron for a child of eight years will require three yards of thirty-six-inch material. The pattern, No. 7153, is cut in sizes for girls of four, six, eight and ten years. With coupon, ten cents.

The winter fashions in millinery are coming in bright and pretty; evidently the general effect for the winter of 1897 will be warmth and comfort. Velvet hats will be very fashionable, as will felt, trimmed with velvet, fur and plush and every color of the rainbow brought into use. White will be employed, but it must be used rather sparingly, and with judgment, as it is apt to look rather cold in winter. White lace and white flowers will be used in such a manner that the effect will be very dainty.

Just as the flower bows have been used this season, silk folded into the semblance of flowers will be approved this winter.

Suppose a pretty, fashionable hat to wear from October 15 until after the Christmas mark-downs is wanted, and you have for materials, a few old feathers, some "elderly but respectable" velvet, and a little bunch of velvet roses. Do not try to cover a frame (few amateur milliners can do that well), but take your last year's hat and give it a thorough brushing and cleansing. Then take the velvet, get all the dust out of it and hold it over the steaming tea kettle; take a very hot iron and while another person holds it, rub it over the smooth part of it, right side up of course. Wipe every particle of dust and dirt from the feathers, with a dry cloth, and curl them with a dull knife.

Cut a circular piece of velvet perhaps sixteen inches in diameter, and set it on a Tam O'Shanter crown. Cut another piece of velvet, about four inches wide, and fold it loosely around the crown. After curling the feathers, bunch them gracefully at the left side, having them curl towards the outside and back. Buy a little buckle or pin at ten or fifteen cents and clasp it in the centre of a small flat bow of velvet, and put it over the place where the feathers are set on.

Now for the roses. If they are worth using, buy a yard of black lace, gather about half of it in a fan-like shape, and set it, with a rose in it, in the right back of the hat. Now gather a small piece of velvet into a rosette and sew it side by side with the lace and the rose. Next, the rest of the lace with another rose, and then another velvet rosette. You will now have a pretty useful hat at the cost of about thirty cents and a little time.

Provision is made every year for the young ladies and the matrons in the fashions, but we seldom hear what the lady of sixty to seventy-five is to wear, and a word about her winter bonnets would not be amiss.

Jet bonnets are always pretty and as cool and neat looking in summer as straw. This fall trim with white lace and violets, yellow violets, red roses

and algerettes are always pretty on them. Another pretty bonnet that is never out of place in winter is one of black velvet, made over a frame and trimmed with black ostrich tips, and small dark red velvet roses, the latter being set on at the back over the velvet strings.

One more that is never out of place is of felt or straw, as the season may be, and trimmed with black satin bows and violets, and small jet ornaments in front.

AGATHA A. PLYMPTON.

The tendency of the winter jacket is toward the blouse effect, which is obtained by darts, says the Ladies' Home Journal. Yokes, collars, cuffs, petersham in fur, whether it be mink, Persian lamb, ermine, sable, silver and black fox, or monkey, will be popular. Velvet and silk braid of all widths are much used. Satin cloth is really the novelty of the day, and obtains in heliotrope, green, mode, golden-brown, silver-gray, royal-blue, dove and Lincoln green. On this are seen, not only the fur decorations mentioned, but also a very thick, coarse, black woolen braid, and tiny straps of leather matching or contrasting with the cloth in color. Collars continue high or gored and undulating, and may be lined with fur, velvet or lace. Watteau effects are seen. Capes will continue to be worn. The novelty in the trimming is a dounce of the same material about the edges, described by the French modiste as cut in round.

The popular fabrics for winter costumes will be satin cloth, serges, chevots, Scotch homespun and tweeds. Fancy designs or plaids are not as popular as they were. Velvet and velveteen will be more worn than ever before, while for visiting and dinner dresses black satin maintains its vogue, though satin brocades, either in one color or in soft shades, in harmonious, are also counted in good form. The colors favored are dark navy blue, gray, a very deep golden-brown, a darker green than emerald, a pretty dark red and royal purple.

Buttons are profusely used, but they come chiefly in large fancy shapes in horn, gutta-serena or mother-of-pearl. The various braids and the narrow satin ribbons, especially in black, are used to produce original effects on skirts and bodices, a decoration fancied by the modiste, and contrast obtained by means of an out-lining with white braid. For street wear the suit—that is, the costume in one color—continues to obtain. The jaquette blouse is the new bodice of the season.

Poplins are "coming in," and both plain and figured patterns are to be seen, says Harper's Bazar. Bright plaids, checks, and stripes are exceedingly effective, and look as though they might be very durable. All the Scotch plaids are fashionable, and many new plaids have been recently designed. On a dark brown, blue, or black background the bright colors stand out clear and sharp. They will be made up in skirts to wear with plain short coats, for school frocks, and will be greatly used for combining with other materials for vests, sleeves, and trimmings.

The plain colors in the poplins are much smarter, and will be worn with velvet waists and jackets. A dark brown trimmed around the skirt with black and gold braid has a short blouse of brown velvet with vest of yellow satin. At the belt and fastening the collar are gold buckles which show to great advantage against the dark brown. For children's frocks poplin is a capital material, as it wears well and always looks smart. It is not, however, suitable for school frocks, and under all circumstances should be simply made. Dark brown, blue, and scarlet are the best colors.

There are many different kinds of poplin; some classed under the head of novelties; these have dots of white or black silk, and are suitable for reception costumes. One in gray flecked with white has recently been made up, the waist a lace blouse over yellow satin, with a bertha of the poplin cut in squares and edged with a band of guipure lace. The bertha is quite long, and there are points which fall over the sleeves. Collar and belt are of yellow velvet finished with long pointed bows.

Black silks are again greatly in favor, and are in such great variety that it is difficult to know just what to buy. The plain shiny silks are very smart, but not so satisfactory as the gros grain and peau de soie, which are to be greatly in favor. Small figured patterns in brocades and plain satins are not tabooed, although not to be placed among the most desirable. Colored silks of all kinds and broad effects, particularly for older women, are very stunning in design and coloring. One of the newest fashions is to have a black silk made with facings, linings, and bows of some bright color. Turquoise blue, yellow, and red are much used in this way, and the effect is singularly good. Brocaded silks and satins are still being sold at such very low prices as to make the shopper very wary. A bargain is always a delightful thing to secure, but when any material is sold astonishingly cheap there is the danger it will be so universally worn as to lose any smart look. For evening wear the plain silks and satins as well as brocades will be fashionable, and it is said gauze, net, tulle, and chiffon are to be relegated almost exclusively to young girls.

When net is used it is to be up over expensive silk and tulle linings, and effectively trimmed. Simplicity is no longer to be in fashion.

There are some points of difference in the making of the skirts this season, says Harper's Bazar. To begin with, they are narrower; very rarely is an exaggeratedly wide skirt seen, and then it is one that is cut in one piece, circular—a style only to be attempted by some genius in skirt-hanging. Fewer gores—never more than five; the front and side breadths much straighter, still tight-fitting over the hips, and all fullness well to the back, where it is laid in small box-plaits. There is still used a narrow facing of hair-cloth, and a stiff ruffled petticoat is necessary as ever to keep the dress skirt from falling in around the feet. Sleeves are small to the shoulder; in tailor gowns they are very pretty—a much-modified coat sleeve, with just a little fullness at the

top. Almost all skirts are trimmed, or made some figured material that gives the effect of trimming. Braid is now sewed on at both sides, instead of only one like last winter, and the narrow is preferred to the wide, unless when the wide braids and very narrow soutache are combined. Street gowns are short, to clear the ground; house gowns are all long; while dinner gowns, etc., are made with trains. For street wear dark colors will be the most fashionable, but for receptions and the house all the light colors are in style, both for old and young. Buttons, buckles, and brilliant trimmings will be greatly used, while lace, both black and white, will continue to be worn with every possible style of gown.

Grow fragrant leaved plants in your garden. Slips of rose geraniums, planted in good rich garden soil soon make plants from which you can take branches and not miss them, says Vick's Magazine. Lemon Verbena is an old-time favorite, with fragrant foliage. Ambrosia, a very old, old plant that has been masquerading as a novelty, (which of course it is to those who do not remember their grandmother's garden), has a refreshing fragrance, forcibly reminding one of the fir and pine woods when the sun is shining with noonday heat, or as it sometimes is after a shower.

September is the month when the florist with his greenhouses sets about in earnest, to prepare all kinds of tender plants from the outdoor stock, and the window gardener cannot do better than to follow example. At this, of all seasons, slips are plentiful, and they will

root more readily now than if slipping is deferred until the chilly weather of a month later.

Be sure to give the spring blooming bulbs a nice warm winter blanket of leaves, litter from the stable, or brush, or a combination of all, and do not be in a hurry in spring to get them out of their winter clothes. Don't rush out the first warm day and clear away the brush and litter just because it is unsightly looking. The crocus and snow-drop will not need so warm a covering as the other bulbs and can be uncovered earlier in the spring. But from the tulip, hyacinths, etc., gradually remove the covering, leaving the finest of the stable litter on the beds permanently.

The soft, fine white flour will not give as large an amount of muscle, bone or nerve-making food as the whole wheat flour, which constitutes in itself a complete life-sustainer. In selecting flour choose that which is dark in color and free from bran says Mrs. Rorer, in the Ladies' Home Journal. The best bread flours in the market are of a yellowish-white tinge, rather granulated and do not easily pack. They make a strong and elastic dough. Though not whole wheat flours they are decidedly the best of the white brands. After selecting the flour the next important thing is to have a good, strong, sweet and pure yeast. The compressed cakes are good and convenient, and will do the work much more quickly than ten times the amount of home-made or baker's yeast.

When setting bread to rise stand your bread-pan in another of warm water; cover the two so that the moisture will pass over the top of the dough at an even temperature of seventy-five degrees Fahrenheit.

A leg of mutton should be carved across the middle of the bone first and then from the thickest part until the gristle is reached, says an exchange. A few nice slices can be cut from the smaller end, but it is usually hard and stringy.

To carve a loin of veal or mutton begin at the small end and cut the ribs apart. A fillet of veal should be cut first from the top, and in a breast of veal the breast and brisket should first be cut apart and then cut in pieces.

A sirloin of beef should be placed on the platter with the undercut underneath. Thin-cut slices should be taken from the side next the carver, and then turn over the roast and carve from underneath. A portion of both should be helped.

Fowls should be placed breast up. Put the fork into the breast to steady the bird, then cut off the wings and legs. Cut out the breastbone so as to leave the well-browned skin over it and the white meat; cut off the side bones and divide what is left in two from the neck down. Remove the second joint from the leg and the wing.

FIBROID TUMOR

Expelled by Lydia E. Pinkham's Vegetable Compound.

Interview With Mrs. B. A. Lombard.

I have reason to think that I would not be here now if it had not been for Lydia E. Pinkham's Vegetable Compound. It cured me of a fibroid tumor in my womb.

Doctors could do nothing for me, and they could not cure me at the hospital. I will tell you about it.

I had been in my usual health, but had worked quite hard. When my monthly period came on, I flowed very badly. The doctor gave me medicine, but it did me no good. He said the flow must be stopped if possible, and he must find the cause of my trouble.

Upon examination, he found there was a Fibroid Tumor in my womb, and gave me treatment without any benefit whatever. About that time a lady called on me, and recommended Lydia E. Pinkham's Vegetable Compound, said she owed her life to it. I said I would try it, and did. Soon after the flow became more natural and regular. I still continued taking the Compound for some time. Then the doctor made an examination again, and found everything all right. The tumor had passed away and that doctor was gone.—Mrs. B. A. LOMBARD, Box 71, Westdale, Mass.

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